In the Drawings

There are no amendments to the drawings.

Remarks

Applicant has amended claims 1and 13. Applicant respectfully submits that no new matter was added by the amendment, as all of the amended matter was either previously illustrated or described in the drawings, written specification and/or claims of the present application. (See, Pars. 7, 20 & 22; "The barrier layer 104 comprises a polyester shrink wrap"; "the barrier layer 104, the braided layer 106, the laminating layer 108 . . . form a composite material" and "[t]he result of this layering is a composite endoscope insertion shaft that exhibits the additive characteristics of the individual layers in a single composite structure.") Entry of the amendment and favorable consideration thereof is earnestly requested.

Claim 1 recites among other limitations "a sheath comprising at least the following layers: a braided layer; a laminating layer; a wear layer; a barrier layer comprising a polyester wrap disposed between the tubular member and the braided layer and jacketing the tubular member." Claim 13 recites among other limitations an "endoscope insertion shaft comprising . . . a barrier layer jacketing the tubular member; a braided layer jacketing the barrier layer; a laminating layer; a wear layer; wherein at least said barrier layer, said braided layer and said laminating layer are formed as a single composite structure." Applicant respectfully submits that these limitations are not disclosed or taught in the cited prior art.

The Examiner has submitted that Konstorum et al. (U.S. Patent No. 6,749,560) "teaches that cover 32 could also include a structural reinforcement (see col. 5, lines 7-10)" and that Abe et al. (U.S. Patent No. 6,540,669) teaches "a sheath comprising a braided layer 22, a laminating layer 33 and a wear layer 34." (Official Action 11/17/06, p. 3). The Examiner has not specifically pointed to "a barrier layer" as recited in the claims, however, Applicant believes that the Examiner is pointing to the possible "structural reinforcement" taught in Konstorum et al. as comprising this layer, which would then be surrounded by the layers taught in Abe et al. There are a number of problems with this expansive reading of Konstorum et al. and Abe et al.

First, nowhere does Konstorum et al. teach or suggest that the "structural reinforcement" comprises a barrier layer. Rather, Konstorum et al. merely states that the "cover could also include a structural reinforcement, such as disclosed in U.S. patent application Ser. No. 09/087,305", which Applicant notes has become U.S. Patent No. 6,171,235 ("the '235 patent"). (Col. 5, lns. 9-10.) However, when referring to this reference, Applicant notes that the "reinforcement structure" taught in the '235 patent includes "a helically oriented thread", "wire, fiber, thread, or threadlike structures of an appropriate tensile strength." (Abstract; Col. 2, lns. 42-44.) Nowhere, however, does the '235 patent teach that the "structural reinforcement" comprises a barrier layer as recited in all pending claims. Applicant further notes that claim 1 further recites that the barrier layer comprises "a polyester wrap." This limitation is neither taught, disclosed or suggested in any of the cited prior art.

A second problem with expansively reading of Konstorum et al. and Abe et al. as including a barrier layer or further modifying the combination to include a barrier layer, is that this combination and/or modification works against stated objects of the invention in Abe et al. For example, Abe et al. teaches a layer construction where the sheath is securely bonded to the core of the endoscope. This is achieved by facilitating the outer cover (3), or specifically the inner layer (32) in the case of a multi-layer outer cover, to flow through openings in the braided layer (22), to contact the coil (21), and to create protrusions (31) that extend into the gaps (25) of the coil (21). However, this could not be accomplished if a barrier layer were provided between the braided layer (22) and the coil (21). Instead, the barrier layer would prevent flow of the outer cover (3), or the inner layer (32), from contacting the coil (21) and from forming protrusions (31) that extend into the gaps (25). Therefore, either expansive reading or modification of the combination of Konstorum et al. and Abe et al. to include a barrier layer works directly against stated objects of Abe et al. and therefore an obvious rejection based on a combination of these two references is inappropriate. MPEP 2143.01; *In re Gordon*, 733 F.2d 900, 221 USPQ2d 1125 (Fed. Cir. 1984) (if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.)

Applicant further respectfully submits that none of the cited prior art teaches or suggests the novel layers as claimed in claim 13 or that "at least said barrier layer, said braided layer and said laminating layer are formed as a single composite structure."

The Examiner has pointed to the tubular structure and the "structural reinforcement" of Konstorum et al. and to "a sheath comprising a braided layer 22, a laminating layer 33 and a wear layer 34" of Abe et al. as teaching the claimed layers. However, Applicant notes that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *See, e.g.,* MPEP 2143.01; *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990) (fact that prior art "may be capable of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so."). In the present case, Applicant respectfully submits that nowhere do the cited references teach or suggest that it would be advantageous or even possible to form the "structural reinforcement" of Konstorum et al. and the "braided layer" and "laminating layer" of Abe et al. as a single composite structure as recited in claim 13. Applicant notes that there "must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself." *In re Oetiker*, 977 F.2d, 1443, 1447 (Fed. Cir. 1992). *See also In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). Applicant further notes that it is impermissible to assemble the prior art using the pending claims as a roadmap to select various features from the prior art where there is no motivation in the references themselves for doing so. *See e.g. W.L. Gore and Assocs., Inc. v. Garlock, Inc.,* 721 F.2d 1540, 1553, 220 USPQ 303, 312-13, (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). In the present case, there is no suggestion in the cited references to combine

some of the layers from the different references to form a single composite structure as recited in claim 13.

Accordingly, Applicant respectfully submits that because neither Konstorum et al. nor Abe et al. teach, disclose or suggest, and actually teach away from "a barrier layer" as recited in all the pending claims, no combination thereof can render the pending claims obvious. In addition, because the cited art fails to teach, disclose or suggest that the barrier layer comprises a polyester wrap as recited in claim 1, but actually teach away from this limitation, no combination thereof can render claim 1 obvious. Finally, because none of the cited art fails to teach, disclose or suggest that "at least said barrier layer, said braided layer and said laminating layer are formed as a single composite structure" as recited in claim 13, no combination thereof can render claim 13 obvious.

It is respectfully submitted that claims1-7 and 10-13, all of the claims remaining in the application, are in order for allowance and early notice to that effect is respectfully requested.

Respectfully submitted,

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